

OH 1

5.1 #61

$$p = 10\,000$$

annual rate 6%

$$0.06$$

$$0.005 = r = \frac{0.06}{12} \quad \begin{array}{l} \text{monthly rate} \\ \text{(rate per compounding period)} \end{array}$$

a. $d = \$100$ per month.

a_n = amount student owes after n months

$$a_n = (1 + r) a_{n-1} - d$$

$$a_1 = 1.005 \underbrace{(10\,000)}_{a_0} - 100$$

$$a_0 = 10\,000 \quad \text{owed}$$